

WHAT IS CLAIMED IS:

1. A method for manufacturing a molded article that comprises a substrate material and skin material, comprising:

5 press molding the substrate material and the skin material and simultaneously cutting a peripheral portion of the substrate material in order to remove an unnecessary or waste portion from the substrate material, but without cutting the skin material.

10 2. A method as defined in claim 1, wherein the substrate material is cut at or before completion of the molding step.

15 3. A method as defined in claim 2, wherein the molding step further comprises closing a first die and a second die, wherein the first die receives the substrate material and the second die receives the skin material, and the cutting step further comprises moving a cutter toward the substrate material while simultaneously closing the first and second dies.

20 4. A method as defined in claim 3, wherein the cutter comprises a first cutter element and a second cutter element, the first cutter element cooperating with the second cutter element when the first and second dies are closed, to thereby cut the substrate material.

25 5. A method as defined in claim 4, wherein the first cutter elements comprises a cutter blade arranged and constructed to move in a direction of the closing of the first and second dies and the second cutter element comprises a cutting edge formed on the first die, wherein the cutter blade moves and cooperates with the cutting edge when the first and second dies close.

30 6. A method as defined in claim 5, further comprising moving the cutter blade from a retracted position to a projected position prior to cutting the substrate material.

7. A method as defined in claim 6, wherein the substrate material comprises a mixture of natural fibrous materials and thermoplastic resin-based fibrous materials, and wherein the substrate material and the skin material are heated prior to or during the molding

step.

8. A method as defined in claim 7, further comprising drawing a vacuum to pre-form the skin material received within the second die prior to closing the first and second dies.

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9. A method as defined in claim 1, wherein the substrate material comprises a mixture of natural fibrous materials and thermoplastic resin-based fibrous materials, and wherein the molding step further comprises heating and pressing the substrate material and the skin material.

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10. A method as defined in claim 3, further comprising drawing a vacuum to pre-form the skin material received within the second die prior to press molding the substrate material and the skin material.

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11. A method as defined in claim 1, wherein the molding step further comprises folding an excess portion of the skin material along a side edge of the substrate material and molding the skin material to the side edge of the substrate material after the side edge of the substrate material was cut but before completion of the molding step.

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12. An apparatus for manufacturing a molded article that comprises a substrate material and skin material, comprising:

a first die receiving and supporting the substrate material,

a second die receiving and supporting the skin material, wherein the second die is arranged and constructed to engage the first die in order to press mold the substrate material and the skin material, and

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a cutter cooperating with the first molding die, wherein the cutter is arranged and constructed to partially cut the substrate material when the second die moves towards the first die, but the cutter does not cut the skin material.

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13. An apparatus as in claim 12, wherein the cutter comprises a first cutter element and a second cutter element, the first cutter element cooperating with the second cutter element based upon relative motion of the first and second dies, to thereby cut the substrate material.

14. An apparatus as in claim 13, wherein the first and second cutter elements are disposed on or proximal to the first die.

5 15. An apparatus as defined in claim 14, wherein the first cutter element comprises a cutter blade arranged and constructed to be pressed by the second die when the second die moves towards the first die and the second cutter element comprises a cutting edge formed on the first die, wherein the cutter blade and the cutting edge are arranged and constructed to cut the substrate material when the second die moves towards the first die.

10 16. An apparatus as defined in claim 15, further comprising means for moving the cutter blade between a retracted position and a projected position when the first and second dies reach an intermediate position.

15 17. An apparatus as defined in claim 16, further comprising a retainer arranged and constructed to receive the cutter blade, the retainer contacting the first die when the cutter blade is moved, to thereby define the projected position.

20 18. An apparatus as defined in claim 17, further comprising a vacuum pump communicating with the second die, wherein the second die is arranged and constructed to pre-form the skin material when the vacuum pump is actuated.

25 19. An apparatus as defined in claim 12, further comprising a vacuum pump communicating with the second die, wherein the second die is arranged and constructed to pre-form the skin material when the vacuum pump is actuated.

20. An apparatus for manufacturing a molded article that comprises a substrate material and skin material, comprising:

means for press molding the substrate material and the skin material and

30 means for simultaneously cutting a peripheral portion of the substrate material in order to remove an unnecessary or waste portion from the substrate material, but without cutting the skin material.